

CHAPTER TWO

AGGRESSION IN TERRORISM

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Abstract: Behavioral scientists have attempted to describe and explain terroristic aggression in various ways. Acts of terrorism have typically been labeled as instrumentally aggressive in nature, however, we argue that this descriptor is insufficient in capturing the complexity of terroristic aggression. In light of this, we propose a new term called “programmatically aggression” that may better serve to capture the multiple levels of influence in generating terroristic aggression. We also review how personality and psychopathological models and theories of aggression, including the frustration-aggression hypothesis, social learning theory, and the General Aggression Model, have been applied and fall short in the explication of terroristic aggression. Finally, we suggest some future directions of research that would likely benefit the study of terrorism and aggression, including analysis of social psychological work on group dynamics and their influence on individual and group behavior, as well as forensic risk and threat assessment research that could inform future efforts at predicting and hopefully, preventing acts of terroristic aggression.

Keywords: Terrorism, aggression, etiology.

“When man had reached the stage of having weapons, clothing, and social organization, so overcoming the dangers of starving, freezing, and being eaten by wild animals, and these dangers ceased to be the essential factors influencing selection, an evil intra-specific selection must have set in. The factor influencing selection was now the wars waged between hostile neighboring tribes.”

—Lorenz, *On Aggression*, 1966, pg. 39

Aggression, whether expressed by the leaders or the members of a terrorist group, is a central component of terrorism; characterized by the defined rationale of *a violent outcome with the intent to elicit fear and terror based on social, political and/or religious reasons* (e.g., see WordNet, 2009; The Free Dictionary, 2009). This “outcome” has been important since the term terrorism was first popularized during the “Reign of Terror” in France in the 1790s (Hoffman, 1998)¹. During this period of the French Revolution, conflict between rival political parties resulted in indiscriminate aggression and violence by the state against its civilian population. Tens of thousands of people were killed over a period of approximately ten months for the purpose of instilling fear in the public and preventing a counter-revolution. Several thousands were executed in public as part of educational propaganda (Kerr, 1927).

Since the “Reign of Terror,” numerous definitions of terrorism have emerged that encompass aggression and violence (or the threat of such behavior) as major components of terroristic acts (Laqueur, 1999). For example, the United Nations Security Council’s Resolution 1566 (2004) describes terroristic behavior as:

“...criminal acts, including against civilians, committed with the intent to cause death or serious bodily injury, or taking of hostages, with the purpose to provoke a state of terror in the general public or in a group of persons or particular persons...”

Similarly, the United States federal law (United States Code, § 2331, 2007) characterizes terrorism as:

“...involve[ing] violent acts or acts dangerous to human life that are a violation of the criminal laws of the United States or of any State... intended to intimidate or coerce a civilian population; to influence the policy of a government by intimidation or coercion; or to affect the conduct of a government by mass destruction, assassination, or kidnapping...”

The Terrorism Act 2000 of the United Kingdom’s Parliament (2000) describes terrorism as an action that:

“...involves serious violence against a person... serious damage to property... endangers a person’s life, other than that of the person committing the action... creates a serious risk to the health or safety of the public or a section of the public.”

Although definitions of aggression also vary, the primary component is the intent to do harm. Terrorism is characterized by an additional element; the intent to instill fear in the target – whether the aggression is covert, as in planning a terror attack, or overt, when carrying out the terror attack, the *intent* to cause fear and terror is typically present. Given that acts of terrorism are often considered intentional and of a premeditated nature, theoretical work has justifiably focused on why and how such individuals can carry out such extreme acts of violence against innocent others.

However, it should be noted that defining terrorism has been a subject of ongoing debate (Hoffman, 1998), confounded by changes in meaning of the term throughout history and cultural and political differences in conceptualization of the term. For example, the above descriptions represent Western-centric definitions, which typically attribute the terroristic behavior to illegitimate groups that are nation-less (Tal & Yinon, 2009). Islamic definitions, in contrast, also consider acts of fear-inducing violence by militaristic states as terrorism (Tal & Yinon, 2009).

In the present chapter we provide an overview of extant theory examining the psychological roots of terrorism. First, a psychological definition of aggression and its relevance to terrorism will be provided. Next, aggressive typologies will be presented with a discussion of how these existing categories may fail to capture the complexity of terroristic behavior. In addition, we will present a new type of aggression, called programmatic aggression, that we argue sidesteps the shortcomings of these existing typologies. This will be followed by a discussion of the contended role of personality and psychopathological factors in terroristic behavior. Next, we will summarize psychological models of aggression, including the frustration-aggression hypothesis, social-learning theory, and the general aggression model (GAM) and explicate how these have been applied to terrorism along with their relative shortcomings. Finally, we will briefly suggest future directions for research, including areas of research that may be particularly fruitful in their application to terroristic aggression, such as social psychological principles of group behavior, and forensic work on risk assessment.

1. Defining and Studying Aggression

and its Relevance to Terrorism

A number of definitions of aggression have been put forth. Some of these definitions include covert aggression such as aggressive fantasies and plans, while others denote self-directed aggression or aggressive behavior towards inanimate objects. Many definitions are influenced by the academic discipline of the author (i.e., psychology, sociology, criminology, biology, etc) and the aggression-related mechanisms studied, while other definitions use aggression interchangeably with other terms such as violence, hostility, agitation, anger, etc. Despite the various descriptions used to capture and characterize aggression, and whether the aggressive behavior is physical, mental or verbal, committed by individuals or groups, directed towards others, self, or inanimate objects, associated with mental illness, antisocial personality characteristics, or cultural, political, or religious views, most definitions include an aspect of overt violent behavior with intent to cause damage, pain or harm (for a thoughtful discussion on the topic see Jan Volavka’s seminal book, *Neurobiology of Violence*, 2002, as well as Martin Ramirez: *Human Aggression: A Multifaceted Phenomenon*, 2003). It should also be noted that “harm” does not have to be limited to physical harm, but can also include psychological and emotional harm, and therefore, would encompass the intent to intimidate or instill fear in the target group. It is this definition of *intent to cause physical and/or psychological harm* that we use to inform our discussion of terroristic aggression throughout the chapter.

When studying violent and aggressive behavior, particularly in humans, it is often examined from a perspective in which aggression is considered as a unitary construct and a categorical approach is used; an individual or individual act is either aggressive or not, or a person has an “aggressive” personality type or not. Although simplistic, the use of this type of framework in studying aggression has the advantage of being parsimonious and facilitating research

efforts, and accordingly, many measures of aggression use this approach. For instance, some theorists have noted the nature of terroristic violence is consistent with what is called “instrumental” or “reactive” aggression, one form of violence in a bimodal theory of aggression. We will now briefly describe this bimodal theory of aggression, and discuss how it may be relevant in furthering our understanding of terroristic violence.

1.1. Instrumental versus Reactive Aggression

The bimodal theory of aggression describes aggression as occurring in one of two forms (Barratt, 1991; Stanford, Houston, Mathias, Villemarette-Pittman, Helfritz, et al., 2003). The first form is called “reactive” aggression (also referred to as impulsive, expressive, hostile, unintentional, or affective aggression) and occurs in response to a perceived threat or provocation. It is characterized by a reaction of fear or anger with autonomic arousal, a loss of behavioral control (Barratt, 1991), and is normally immediate and defensive in nature (Meloy, 2006). The second type is referred to as “instrumental” aggression (also called premeditated, intentional, predatory, proactive, or cold-blooded aggression) and is goal-oriented, planful, tends to be characterized by the lack of or minimal emotional and autonomic arousal (Stanford, Houston, Villemarette-Pittman, & Greve, 2003; Meloy, 2006), and is typically offensive in nature (Meloy, 2006).

This bimodal theory of aggression is supported by a growing body of empirical research (Meloy, 2006). Psychophysiologically, reactive aggressors appear to evidence increases in heart rate in response to a perceived provocation whereas instrumental aggressors do not (Gottman, Jacobson, Rushe, Shortt, Babcock, et al., 1995). Instrumental aggression has distinct neurobiological correlates that differ from that of reactive aggression (Blair, 2001; 2003). Reactive aggression has been related to hyperactivity in the amygdala (Siever, 2008) and amygdala-orbitofrontal cortex dysfunction (Coccaro, McCloskey, Fitzgerald, & Phan, 2007). Amygdala hypofunction, however, is more commonly related to instrumental aggression (Blair, 2001). These neurobiological deficits appear linked to impaired processing of distress-related emotion cues, in that there is a disruption in the generation of appropriate responses to emotional stimuli. In other words, the aggression-prone individuals may lack proper inhibition mechanisms for aggressive and violent behavior. Experts have speculated that reactive aggressors may lack executive control over their emotions and behavior causing them to react violently in the “heat of the moment,” whereas instrumental aggressors do not lack executive control and, hence, engage in more “cold-blooded” and calculated acts of violence (Raine, Meloy, Bihle, Stoddard, LaCasse, et al., 1998). In terms of neurochemistry, studies have shown that noradrenergic and dopaminergic systems are associated with the facilitation of reactive aggression (McEllistrem, 2004), while cholinergic systems are implicated in the facilitation of instrumental aggression (Miczek, 1987). In addition, neuropsychological studies have shown that reactive aggressors appear to demonstrate poorer verbal ability and intelligence than their instrumental counterparts (Barratt, Stanford, Kent, & Felthous, 1997; Vitiello, Behar, Hunt, Stoff, & Ricciuti, 1990). Taken together, these results provide strong empirical support for two forms of aggression with different underlying psychophysiological, neurobiological, neurochemical, and neuropsychological substrates (for a deeper analysis of this dichotomous categorization of aggression see Ramirez & Andreu, 2003; 2008).

It has not escaped the attention of terrorism researchers that terroristic behavior can be construed as a form of instrumental aggression; the outcome (harm to others) is often secondary to the primary politically-motivated goal of social change (Megargee, 1993). Similarly, the outcome might be secondary to other religious, social, and/or ideological goals. In fact, terroristic acts meet many of the defining criteria of instrumental aggression according to Meloy’s scheme (2006). More specifically, terroristic acts are generally planned and purposeful, are not enacted in immediate response to a perceived instigating event (i.e., not time limited) and accordingly, there is often no *imminent* perceived threat from the enemy. However, there are theoretical problems when attempting to directly apply this dichotomous typology of aggression to terroristic behavior. Most importantly, reactive and instrumental forms of aggression are typically applied to individuals or individual acts. Therefore, applying the label of reactive or instrumental aggression to a specific terrorist or terroristic act may attempt to force an individual-level theoretical construct to a person/event that has individual, group, and societal-level motivational components.

At the individual-level, the dichotomization of each terrorist’s behavior as reactive or instrumental aggression may obscure the dynamic nature of the motivations of the aggressive act(s). Each event may be composed of both reactive and instrumental motivational elements (Meloy, 2006), and the motivations of each terrorist may change over time. For example, an individual’s initial reason for joining a terrorist organization (e.g., anger in response to a perceived injustice) may change over time, particularly as the person becomes more enmeshed in the organization. At this point, group-level influences may take on an increasingly salient role and the individual’s goals may shift more in line with

the group's goals.

At the group-level (i.e., the terrorist organization), terrorist acts are generally categorized as instrumentally aggressive (Megargee, 1993). However, as already discussed, reactively or instrumentally motivated aggressive acts are typically limited to a discrete event or the acts of one individual, whereas terrorist activities are often carried out over a protracted period of time and by numerous individual members of the terrorist organization, both in solitary and cooperative efforts. Conceptualizing terrorist behavior as instrumental aggression does not adequately address the group- and societal-level influences in the commission of such behavior. Therefore, a more appropriate label may be *programmatically aggression*, a group-level expression of instrumental aggression. The label of programmatic aggression is intended to make no assumptions about the motivations of the individual terrorists, whom may be motivated by reactive and/or instrumental reasons. Moreover, programmatic aggression would not be encumbered by the time, event, and person-limited nature of the individual-level construct of instrumental aggression. Most importantly, it would allow for discussion and exploration of group- and societal-level influences on aggressive behavior as enacted by a collective of individuals. Nonetheless, although this characterization may be useful in describing terroristic aggression, it does not address the etiological factors of such behavior. In the next section, we will present psychological theories that attempt to explicate the roots of terror-based aggression.

2. Etiological Theories of Terroristic Aggression

The etiological factors that underlie the development of terroristic behavior have been a source of theoretical contention for over four decades in the social sciences (Silke, 1998). Psychological theorists have debated the centrality of the role of personality or psychopathological factors in its development. While some experts have opined that terrorists suffer from fundamental personality deficits or mental illness that make them more likely to affiliate with terrorist organizations and engage in terroristic activities, others argue that terrorists, in general, are psychologically "normal." In this section, we summarize theoretical conceptualizations of the terrorist "personality," the role psychopathology may play in the development of terroristic behavior, as well as the methodological and theoretical limitations in these avenues of investigation.

2.1. Personality Factors

Much of the psychological research over the past four decades has been predicated on the assumption that terrorists are psychologically different from non-terrorists, particularly in terms of their personality make-ups (Silke, 1998). This conceptualization, chiefly derived from a psychodynamic or psychoanalytic perspective, posits that certain individuals possess or lack certain personality traits that make them more susceptible to joining terrorist organizations and engaging in terroristic behavior than those individuals who do not (Ruby, 2002). This personality defect model asserts that this "type" of personality is largely the result of a dysfunctional childhood that fosters an impoverished sense of self and hostility toward authority (Ruby, 2002). This resentment to authority may be an outgrowth of unconscious hostility toward abusive or controlling parents, and is later reflected in the adult terrorist's rigid mindset (Kent & Nicholls, 1977).

In line with this conceptualization, Post (1984) referred to this type of terrorist as an "anarchic ideologue," an individual who is primarily motivated by an unconscious hostility toward authority figures (in this case, the target of the terroristic act(s)) due to a dysfunctional relationship with his or her parents, particularly the father. However, he also posited an alternative pathway to terrorism, in which an individual, whom he termed a "nationalist secessionist," experiences a relatively stable upbringing and healthy parental relationships, but instead seeks violent retribution for perceived wrongs perpetuated against his or her parents (Post, 1984).

Strentz (1981) delimited three prototypical terrorist personality profiles. The "Leader" is the intellectual force or "brains" of the terrorist operation and experiences an underlying sense of inadequacy that s/he projects onto society. Society, therefore, is viewed as inadequate and hence a logical target for social change. The "Opportunist" is characterized as the "muscle" of the group and often exhibits antisocial traits and has a history of criminal conduct predating his or her affiliation with the terrorist organization. Finally, the "Idealist" is described as a young and naïve individual who is drawn to a terrorist organization in the hope of effecting political and/or social change.

Based on developmental theory, LoCicero and Sinclair (2007) posit a more social-developmental approach to terrorism. They argue that the terrorist's personality evolves over time, and is not influenced by one domain but instead by various different factors including parents, peers, environment, etc. An individual may join a group based on basic non-violent religious or political views, or for other reasons, and it is in this group that a person's ideology is slowly shaped. However, if this group is, or becomes, involved in a violent conflict, in which the enemy might be

viewed as evil, the individual's group belongingness and her/his desire to be loyal may take precedence. Further, this may result in re-shaping of the individual's principles and consequently lead to her/him becoming emerged in the violent conflict as a terrorist/soldier fighting for the group's ideology.

With respect to suicide bombers, a more specific group of terrorists, Meloy and colleagues (2001, 2004) have suggested that many can be described as "violent true believers" or individuals who are "committed to an ideology or belief system which advances homicide-suicide as a legitimate means to further a particular goal." These individuals are typified by a constellation of traits including: a belief and understanding that suicide is a terroristic weapon, envious impulse (i.e., desire to damage/destroy coveted qualities of the target), helpless dependence (on the target as an object of envy), a sense of omnipotence (with the power to kill), history of depression or despair (that will fluctuate prior to the suicide mission and degree of social isolation), sense of entitlement (reflected by disregard of human life and inflated self-importance), possible psychopathy, capacity for emotional detachment, paranoia, a sense of a foreshortened future and use of predatory violence to achieve goals (Meloy, 2004; Meloy, Mohandie, Hempel, & Shiva, 2001).

Although other personality typologies have been offered in the psychological literature, it is beyond the scope of this chapter to provide an exhaustive account. Nonetheless, personality deficit models reflect the primary role of pathological personality, resulting from an unstable upbringing and hostility toward authority, in explaining why some individuals go on to engage in terroristic activities. However, other theorists argue that mental disorder, particularly personality disorders, may play a prominent role in terroristic behavior (Borum, 2004). Ostensibly, the difference between these two explanatory models is the degree of severity of personality disturbance, with the psychopathology model suggesting a more extreme personality disturbance.

2.2 Psychopathological Factors and Personality Disorders

Although depressive and hypomanic disorders have been implicated in the motivation for terroristic behavior (Turco, 1987), these have received less attention than other forms of psychopathology. According to Silke (1998), attempts to explain terroristic behavior in terms of psychopathology have generally focused on three personality disorders: antisocial personality disorder (and psychopathy), narcissistic personality disorder, and paranoid personality disorder.

Antisocial personality disorder (ASPD), a disorder characterized by chronic disregard of social norms and laws, lack of remorse, impulsivity, and other traits, would seem a suitable diagnosis for explaining terroristic behavior. Indeed, some researchers have opined that a subset of terrorists would meet criteria for a diagnosis of ASPD, while many others would exhibit traits of ASPD without meeting full diagnostic criteria (Martens, 2004). Martens (2004) points out that many individuals with ASPD share certain characteristics with terrorists, such as a sense of social alienation, early maladjustment, impulsivity and hostility.

Psychopathy, although not an official diagnosis in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994), is a personality and behavioral syndrome that shares many features with ASPD, with an additional emphasis on less observable personality variables, such as emotional callousness and manipulative tendencies, and has been implicated in terroristic behavior (Corrado, 1981; Pearce, 1977). Corrado (1981) opined that psychopathy was one of the most "prominent" mental disorders associated with terrorists. Similarly, Pearce (1977) suggested that terrorists are "aggressive psychopaths" who use a political cause as an avenue to vent their frustrations over perceived wrongs and to engage in the domination and humiliation of others.

In a review of research on bombers and psychopaths, Meloy & McEllistrem (1998) noted similarities between the two groups including: an inflated sense of self-importance, emotional callousness, lack of remorse and a proclivity to engage in criminal conduct. In addition, they report that some bombers may evidence decreased autonomic reactivity, a trait often found in habitual criminals and psychopaths. Finally, they found that bombers tend to lack a future-orientation, evidence poor long-term planning, and engage in predatory or "cold-blooded" acts of violence, hallmarks of a psychopathic personality. However, they are careful to note that most terrorists are not psychopaths, and that terrorist bombers also evidence certain characteristics that differentiate them from

prototypical psychopaths. For instance, bombers tend to be socially isolated and solitary and usually subscribe to a strong ideological belief system, traits not typically associated with psychopaths. They suggest that the passive-aggressive use of violence (i.e., bombing) and avoidant personality traits of the terrorist bomber may reflect a phenotypic variant of the psychopathic genotype (Meloy & McEllistrem, 1998). Other researchers have echoed this caveat with regard to terrorists in general, in that ASPD or psychopathy may be represented in only a subset of terrorists, particularly in leaders (Martens, 2004). Even among these individuals, they tend to demonstrate traits that would differentiate them from prototypical psychopaths, such as: a strong sense of loyalty to group members, use of violence that is limited to targets of terror and not specific to individuals (e.g., governmental or bureaucratic agencies), and ability to follow and execute long-term plans (in this case, campaigns of violence) (Martens, 2004).

Narcissistic Personality Disorder has also been used to explain involvement in terrorist behavior (Lasch, 1979; Pearlstein, 1991). Proponents of this view point out that although antisocial and narcissistic personality disorders demonstrate some overlap in features such as lack of empathy and disregard for the rights of others, terrorists also evidence a desire for admiration and attention, a hallmark of narcissism (Ruby, 2002). Their chosen methods of violence are often spectacular and attention grabbing, suggesting a more narcissistic clinical presentation (Ruby, 2002). Other theorists argue that narcissistic traits, particularly in combination with antisocial traits, may be more common among terrorist leaders, and not necessarily among terrorists in general (Johnson & Feldmann, 1992). These individuals may engage in what is called narcissistic aggression, a form of aggression motivated by psychological injuries to their ego (Ross, 1996).

Finally, Paranoid Personality Disorder, a clinical picture characterized by marked suspiciousness, irrational mistrust of others, rigidity in beliefs, and an unwillingness to compromise, has been associated with terrorists (Silke, 1998). Given the rigid and extreme ideological belief systems, often centered around themes of oppression and persecution that terrorists often espouse, paranoid personality disorder would seem a logical fit (Turco, 1987). Not surprisingly, experts tend to agree that paranoid personality disorder may be more common among leaders than among non-leaders of terrorist organizations (Johnson & Feldmann, 1992; Turco, 1987), ostensibly due to the greater material and social resources, such as prestige, the leaders stand to lose.

Although much attention has been paid to the possible personality and psychopathological factors that may facilitate the development of terroristic behavior, some critics also argue that personality traits and mental illness that predisposes an individual to become a terrorist is largely inaccurate. Reid (2003), for example, argues that the attempt to psychologically profile the typical terrorist is simply an attempt to “figure them out”, but “wishing doesn’t make it so” (p. 285). Other critics of the personality/ psychopathology approach discount this body of research on methodological and theoretical grounds, which we discuss further in the following section.

2.3. Methodological and Theoretical Problems of the Personality Defect and Psychopathology Models of Terrorism

In terms of methodology, many critics point out that many personality defect and psychopathology models of terrorism and terrorists largely rely on anecdotal evidence or lack empirical support (i.e., suffer from small sample sizes) (Crenshaw, 2000), or derive personality profiles from secondary sources of information, such as interviews with family members or archival records (Silke, 1998). Indeed, Meloy (2006) qualified the entire body of research regarding the personalities and motivations of bombers as “anecdotal, descriptive, and conjectural,” and resting on “expert authority, not science” (p. 561). Conversely, studies that have employed more stringent methodological standards have found that terrorists are largely indistinguishable from non-terrorists, both in terms of personality (Horgan, 2003; Taylor & Quayle, 1994) and mental health (Borum, 2004). In one of the only studies of its kind in which incarcerated terrorist murderers were compared to a control group of incarcerated non-terrorist murderers, the terrorist group evidenced more psychological stability and less psychopathology, and tended to come from more stable family backgrounds than their non-terrorist counterparts (Lyons & Harbinson, 1986).

When researchers have examined terrorists directly, findings have supported the view that terrorists are psychologically “normal” relative to non-terrorists (Ferracuti & Bruno, 1983; Heskin, 1994; Rasch, 1979). Moreover, when psychopathology is present in terrorists, they typically employ peripheral functions in the terrorist organization (Silke, 1998). Ruby (2002) also points out that in the rare case that a terrorist does meet diagnostic criteria for a mental disorder, it may be the *result* of affiliating and socializing with a terrorist organization and not a causal reason for joining one. Reid (2003) speculates that most individuals who become involved in terroristic acts “do not have more psychological flaws than most criminals.”

Theoretically, opponents of the personality defect and psychopathological models of terrorism argue that attributing terrorist behavior to internal characteristics, such as personality disorders and/or mental illness, is an

application of the “fundamental attribution error” (Eisen, 1979). In other words, proponents of these models tend to ascribe terroristic behavior to personological factors of the individual terrorists, while discounting the role that contextual or structural variables may play in the commission of such behavior (Atran, 2003; Silke, 1998). There is now general consensus in the terrorism research community that empirical attention needs to incorporate multiple levels of analysis, including individual, group, and societal levels (Crenshaw, 2000). Crenshaw (1992, 2000) argues that when these levels of analysis are incorporated, terroristic behavior appears psychologically normative and rational given the sociopolitical climate in which many of these terrorists live. This view is in support of the aforementioned social-developmental model proposed by LoCicero and Sinclair (2007), which emphasizes numerous factors of influence on a person’s ideology.

In sum, modern etiological theories of terroristic behavior seem to discount individual personality and/or psychopathological factors in explaining terroristic behavior, and instead favor group- and societal-level factors. However, psychology has the ability to contribute additional theoretical and empirical work that may have a direct bearing on the genesis of terroristic behavior, particularly with respect to aggression.

Psychology has forwarded many theoretical models to account for aggression. In terms of explaining terroristic behavior, three schools of thought have received particular attention: the frustration-aggression hypothesis, social learning theory, and the general aggression model (or GAM). In the next few sections, we will provide an overview of each theoretical position along with how it has or could be applied to explain terroristic behavior and discuss each school’s relative weaknesses.

2.4. The Frustration-Aggression Hypothesis

The frustration-aggression hypothesis was forwarded in 1939 in an effort to explain aggression in its totality (Dollard, Doob, Miller, Mowrer, & Sears, 1939). The basic premise of this hypothesis opined that any and all instances of aggression were the result of frustration, which was conceptualized as any event/stimulus that prevents an individual from attaining some goal and its accompanying reinforcing quality. These authors stipulated that frustration was a necessary condition for aggression, but contextual factors, such as threat of punishment, could inhibit aggressive responding (Dollard et al., 1939). However, even when an aggressive response is suppressed, the use of non-aggressive strategies may fail to achieve the desired goal and therefore be extinguished, and an aggressive behavior would become the dominant response (Miller, 1941). Since its original conceptualization, this hypothesis has been applied to terroristic behavior.

Most notably, Gurr (1968, 1970) suggested that “relative deprivation,” or a subjective sense of being deprived of certain needs or freedoms by a domestic or international governing body, can result in feelings of frustration. Moreover, if these feelings of frustration are left to percolate, they can eventually culminate in acts of violence and terrorism (Margolin, 1977).

Berkowitz (1989) reframed the frustration-aggression hypothesis in light of cognitive neoassociationist theory. Essentially, he argued that it is not the frustration stimulus or event *per se* that causes aggression, but rather the negative affect that is experienced when frustrated. Initially, a frustration or aversive event will generate diffuse negative affect in an individual with concomitant physiological and memory-related reactions associated to fight or flight (Berkowitz, 1989, 1990). At this point, cognition plays a minimal role, only serving to invest the affect with its negative valence. The cognitive-neoassociationist piece of this model proposes that concepts and ideas form nodes that are “networked” in memory, such that related concepts (and their emotions) are connected; stimulation of one network node will stimulate related nodes. Berkowitz (1989, 1990) argues that negative affect is conceptually linked to aggression-related “nodes” in the individual’s mnemonic networks. Therefore, the experience of negative affect will stimulate aggression-related ideas/concepts (for further discussion on important psychological constructs related to aggression, see Ramirez & Andreu, 2006), making them more readily accessible for the individual to use in guiding his or her behavior, thereby increasing the likelihood that the individual will aggress. In this way, it is suggested that negative affect in general, and not just anger, will increase the probability that an individual will behave aggressively.

Following this initial and more automatic experience of diffuse negative affect, an individual can engage in effortful elaboration on the meaning of the situation. In other words, an individual can evaluate the situation in terms of whom or what is the source of the frustration, whether the frustration was intentional and what response options are available and desirable.

Moreover, Berkowitz (1989, 1990) asserts that learning experiences will likely influence the process of attributing meaning to the situation. It is this stage of the process that may be of particular

relevance to terroristic behavior. Ostensibly, the socialization processes in a terrorist organization will likely foster and encourage attributing hostility to the actions of their enemies, even if ambiguous. Cognitively, the consistent social reinforcement of this type of thinking provided by the terrorist group would strengthen connections between negative affect, aggression-related ideas and the enemy. Therefore, over time, the terrorists' association of negative feelings and ideas with the enemy would become more intense, potentiating aggressive retaliation.

However, Berkowitz (1989) cautions that the cognitive-neoassociationistic adaptation of the frustration-aggression hypothesis is best suited in helping to explain reactive aggression. In addition, although the model affords room for learning experiences in shaping aggressive tendencies, it does not explicitly address societal or group-level influences in explaining terroristic behavior. Finally, it does not provide an explanation as to why terrorists are capable of such sensationistically cruel acts of violence against targets who are not directly responsible for their frustration. In order to shed light on these issues, we now turn our attention to social learning theory.

2.5. Social Learning Theory

Social learning theory proposes that much of human behavior, including aggression, is learned through socializing with and observing others, and "modeling" or mimicking such behavior (Bandura, 1978). Depending on their developmental history, individuals will be differentially reinforced or punished for the use of aggressive behavior. It is these differential histories of reinforcement and punishment that shape an individual's propensity toward aggression.

In terms of terrorism, Bandura (1990, 2004) asserts that socialization within terrorist organizations facilitates the use of extremely violent behavior through learning specific mechanisms of moral disengagement. He states that humans typically internalize personal moral standards that guide their behavior, and violation of these standards causes self-condemnation. Accordingly, individuals are motivated to avoid self-derogation by adhering to these moral standards. In terms of violence, internalized social norms encourage restraint from violence, particularly extreme forms that can lead to the death of others. However, terrorists are socialized in specific ways that permit them to suspend or "disengage" from these moral standards, even if their violence is directed at innocent members (i.e., typically civilians) of the target group of their hostility.

One of the principle ways in which terrorists learn to morally disengage from the implications of their violent actions is to reframe the moral meaning of the violent behavior. In other words, by learning to justify the use of violence as morally defensible, such as by invoking patriotic or ideological rhetoric, the normally morally reprehensible action is reframed as morally legitimate and even necessary. For example, Islamic extremists have explained their terrorist actions as a defensive response to encroaching attempts of Westerners to control the Muslim world. Alternatively, terrorist groups may make appeals to utilitarian logic such that their own acts of violence are deemed necessary in order to prevent greater and more atrocious acts of violence from another instigating group (i.e., Westerners in the latter example); in essence, it becomes a simple calculus involving human life (Bandura, 1990, 2004).

Terrorists may also engage in what Bandura (1990, 2004) calls "advantageous comparison," which involves contrasting their own acts of terrorism with acts committed by other groups that appear more reprehensible. In effect, this contrasting process softens the severity and moral weight of their own terrorist act. In a similar vein, terrorists may use euphemistic language to minimize the perceived impact of terrorist behavior in terms of both morality and human life. The use of such language minimizes or eliminates connotations of harm and responsibility.

In addition, Bandura (1990, 2004) argues that terrorists employ techniques to both displace and diffuse their personal sense of responsibility in their terroristic actions. Terrorists may rationalize their acts as having been mandated by some authority greater than themselves, such as a leader, ideological principle, or deity, thereby shifting responsibility to the authority figure. In addition, some terrorist organizations are hierarchically structured, entailing division of labor. This division of labor serves to parse out different functions and roles, therefore, any one individual is only responsible for their small contribution to the total terrorist act. In this way, responsibility for the final act is shared by, and thereby minimized for each member of the terrorist organization who was involved in the terrorist act.

Bandura (1990, 2004) also notes that terrorist organizations and their individual members are indoctrinated into an ideological system that dehumanizes their enemies. He points out that as we invest others with shared human qualities, we facilitate an empathic connection with them. Conversely, casting an individual or group of individuals as subhuman or as lacking in common human qualities, terrorists are able to

divorce themselves from normal empathic constraints on inflicting harm on these individuals. Accordingly, this negates or depresses their own personal moral sanctions against harming another human being. Finally, terrorists often minimize or simply ignore the harmful impact their actions may have on their targets of terror.

In sum, Bandura's social learning model and mechanisms of moral disengagement help in explaining why terrorists, who for the most part are psychologically "normal", are capable of such extreme violence against innocent targets. However, it does not appear to provide as detailed an analysis as Berkowitz's reformulation of the frustration-aggression hypothesis of the individual level processes or factors involved in the decision to engage in terroristic behavior, such as emotion. More recently, the General Aggression Model (Anderson & Bushman, 2002), has been developed in an attempt to incorporate social learning theory, social cognition and biological factors in aggression.

2.6. General Aggression Model (GAM)

The General Aggression Model (GAM) is a biosocial model of aggression that includes social learning, social cognitive, and biological mechanisms to explain aggression. This model conceptualizes aggression as occurring as a synergy of three influences: inputs, present internal state, and outputs (Anderson & Bushman, 2002).

Inputs consists of both situational information and personological factors. In terms of situational information, cues in the environment can serve to facilitate or inhibit the potential for aggression (Anderson & Carnagey, 2004). For instance, a frustrating event or situation in which expectations for aggression are made salient (e.g., a sporting event or verbal provocation) will create an environment conducive to aggression. In addition to situational factors, the individual also brings their own attitudes, beliefs and personality to the mix, the latter of which may be partially biologically influenced (Anderson & Bushman, 2002; Anderson & Carnagey, 2004).

It should be noted that this model conceptualizes personality as a collection of stable knowledge structures that an individual holds and uses to interpret the world around them (Anderson & Bushman, 2002). Proponents of this model argue that an individual may inherit a biological proclivity to learn and maintain aggression-related knowledge structures, i.e., develop an aggressive personality type (Anderson & Carnagey, 2004). Importantly, this model posits that personality, i.e., knowledge structures, can be changed over time through social learning processes. In other words, the social environment can influence an individual's beliefs, attitudes, and personality or how they perceive the world.

Inputs, in turn, serve to influence the present internal state of the individual in response to a given situation. A person's pre-existing personality, beliefs, and attitudes will affect how they feel, think, and physiologically react to a situation, which in turn will influence the individual's behavior, or outcome, in the situation.

In the outcome stage of the GAM, individuals appraise the situation and arrive at a behavioral decision (Anderson & Bushman, 2002). Individuals may engage in two types of appraisals. The first type is a more "automatic" form of appraisal that involves little thought or weighing of alternative response options that results in some type of impulsive behavior, most likely aggression. Automatic appraisals typically occur when an individual does not have time, or the emotional and/or cognitive capacity to think a situation through; therefore, this type of appraisal is most likely to lead to reactive aggression. The second type of appraisal is referred to as "reappraisal" and involves an individual considering alternative response options that may or may not include non-aggressive ones. This does not imply that the individual is less likely to aggress, rather, they are more likely to think about what they are doing before they decide upon a course of action (Anderson & Bushman, 2002; Anderson & Carnagey, 2004).

In terms of terroristic behavior, this model appears to offer a more comprehensive theoretical framework for understanding the genesis of terroristic behavior. With respect to the situational information component of inputs, terrorists are socialized in an environment that promotes aggressive and violent acts against a specified target. In this way, they are embedded in a context that is replete with overt and covert cues that facilitate the use of violence, at least against a select target.

GAM also provides a framework for understanding, albeit speculatively, as to why an individual joins a terrorist organization and how their ideological beliefs become more extreme over time. By examining the personological component of the input stage of the GAM, we can begin to shed light on these two processes. As previously mentioned, GAM asserts that certain individuals may show a biological predilection to constructing aggression-related knowledge structures (i.e., forming an "aggressive personality") (Anderson & Carnagey, 2004). It may be the case that individuals who become motivated to join a terrorist organization are those individuals who are more likely (from the perspective of a biological predisposition) to become angered and motivated to action by the perceived persecution by a perceived enemy. Once the individual has begun to affiliate with or joined a terrorist group, social

learning processes can then exert their effects in further modifying their knowledge structures, beliefs, and attitudes. More specifically, the dogmatic demonization of an enemy in a terrorist group serves to reinforce the individual terrorist's existing associations among aggression-related concepts, negative affect and the enemy in memory networks. Over time, what may have begun as a somewhat effortful cognitive exercise (i.e., contemplating and ruminating over the evil nature of the enemy) will become less effortful as these associations are reinforced and strengthened through socialization within the terrorist group, to the point of automaticity. Moreover, it would appear feasible that it is during this socialization process that individuals are psychologically and ideologically trained in the forms of moral disengagement that Bandura (1990, 2004) argues are necessary to commit terroristic acts. As becomes evident, the socialization processes in a terrorist organization will afford situational cues and modify personological factors that will encourage violence against a selected enemy.

The GAM posits that input variables will influence the present internal state of the individual. In terms of the terrorist, the input variables will serve to facilitate negative feelings, thoughts, and physiological reactions (likely related to anger and/or fear) toward the enemy, which in turn will affect the appraisal and decision making processes in the outcome stage.

The previous two stages will have a direct effect on how the terrorist appraises, both automatically and in terms of reappraising, their previous, current, and future interactions with their perceived enemy. However, given that terroristic violence is not typically impulsive/reactive in nature, appraisals and decisions in this stage of the GAM are more likely to be influenced by reappraisal processes and not automatic ones. In other words, terrorists are likely to reflect upon previous wrongs inflicted upon them by their enemy, which will reinforce their image of the enemy as a source of persecution, thereby making decisions to retaliate violently easier and more likely.

The GAM, given its incorporation of multiple domains of psychological theory on aggression, provides a more comprehensive analysis of aggression. As a result, when applied to terroristic aggression, it appears to offer a more complete explanatory model than either the frustration-aggression hypothesis or social learning theory alone. Nonetheless, similar to the frustration-aggression hypothesis and social learning theory, it fails to account for how group dynamics and societal level influences generate and affect terroristic behavior. Although it accounts for influences of socialization on the pre-existing and developing mindset of the individual terrorist, it does not examine how group-level behavior or sociocultural and political conditions foster the growth of terrorist individuals and organizations. However, this criticism is not unique to the GAM, but to all of the theories previously discussed. Therefore (and this argument is hardly new) it becomes incumbent upon researchers on the field to incorporate multiple levels of analysis, including individual, group, and societal levels when attempting to provide a fuller account of terroristic behavior.

3. New Methods for Research on Terrorism and Terrorists

In terms of describing terroristic aggression, assigning it a label according to the reactive/instrumental dichotomization appears insufficient to capture the nature of such behavior. Therefore, we have proposed a third type of aggression called programmatic aggression that asserts terroristic behavior is a unique type of instrumental aggression as performed by a collective of individuals, characterized by a dynamic interplay of individual, group and societal level influences. In explaining the generation and escalation of terroristic behavior, it would appear the GAM provides the most comprehensive (albeit untested) framework. But as many other researchers have argued, existing theoretical explanations for terrorism are too focused on one level of analysis (e.g., Ross, 1993, 1994); most psychological models, including the GAM, fail to fully account for group-level or even acknowledge societal level influences. Addressing the former concern, Pyncheon & Borum (1999) provide an excellent review and much needed first step in attempting to explain how social psychological principles of group behavior can be applied to explain terrorism.

Perhaps threat assessment of terrorism can benefit from decades of sophisticated research in violence risk assessment in forensic psychology and psychiatry. Forensic risk assessment does not explain aggression or its etiology. Rather, it predicts future violence by looking at factors that are associated with future risk, using an individual's sociological, psychological, and biological history and current life context. However, this body of research has examined risk for violence in individuals and not organizations; nonetheless, it may prove a beneficial starting point for future research efforts in examining group-level risk assessment. For example, some researchers have opined that individuals that engage in targeted violence (i.e., plan to harm only one or multiple specific individuals) may often follow a sequence of behaviors "on a path toward violence" (Borum, Fein, Vossekuil, & Berglund, 1999). Identifying analogous sequences of behavior that precede terrorist acts, both at the

organizational/group and individual level would provide critical data toward informing prevention efforts. In an exciting move in this direction, Pynchon and Borum (1999) provide a tentative guideline on how social psychological principles of group behavior can be applied to risk assessment of terrorist groups. Additional theoretical and empirical work is sorely needed in this area in order predict and ultimately prevent future acts of terroristic violence.

4. Conclusion

We have provided a summary of psychological theory in both describing and explaining terroristic behavior. Attempts to describe terroristic behavior in terms of a bimodal theory of aggression (i.e., reactive or instrumental in nature) appear insufficient given their neglect of group and societal-level influences in explaining aggression. We forward a third type of aggression, called programmatic aggression, in order to address this shortcoming.

In terms of etiological factors in terroristic aggression, it appears that previous attempts, particularly in terms of a “terrorist personality” or mental illness, have largely failed. Moreover, psychologically grounded etiological theories of aggression may be limited in their utility in explaining terroristic aggression due to their primary focus on the individual-level of analysis. While these theories do attempt to account for socialization processes (i.e., a group-level influence) in the development of terrorism, they do not do so to a sufficient degree; more importantly, they only indirectly or completely ignore the influence of sociocultural and political factors in generating and maintaining terroristic behavior. Finally, social psychology of group behavior and the literature on violence risk assessment can offer useful starting points in extending our knowledge of causes of terroristic aggression, and inform prevention efforts.

“The one and only unquestionable value that can be appreciated independently of rational morality or education is the bond of human love and friendship from which all kindness and charity springs, and which represents the antithesis to aggression.”

—Lorenz, *On Aggression*, 1966, pg. 276.

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Endnote

¹ Although the history of terrorism (the act of terroristic behavior by groups) clearly dates back further than the French Revolution and the Reign of Terror (e.g., see Terrorism Research, 2009), we are in this chapter referring to what many scholars consider the epoch when the term was initially commonly accepted and popularized (Hoffman, 1998). However, it should also be noted that the term “terror,” which stems from the Latin word meaning “to frighten,” was used as early as 105BC by Romans to describe attacks by warriors of the Germanic Cimbri tribe (*terror cimbricus*) (Gjerset, 1969).